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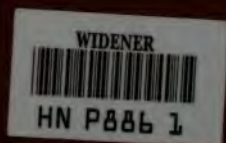
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THE
SCUPPERNONG GRAPE

178

HISTORY AND MODE OF CULTIVATION,

WITH A HISTORY

*OF THE
PROCESS OF THE MANUFACTURE
OF WINE FROM IT*

BY
J. VAN BUREN,
OF CLARKSVILLE, GA.

Second Edition, Revised and Enlarged.

MEMPHIS, TENN.,
FARMER, BROTHERS & CO., STATIONERS AND BOOKSELLERS,
201 Main Street.

1874

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THE SCUPPERNONG GRAPE

ITS
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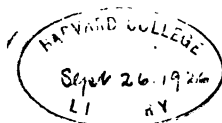
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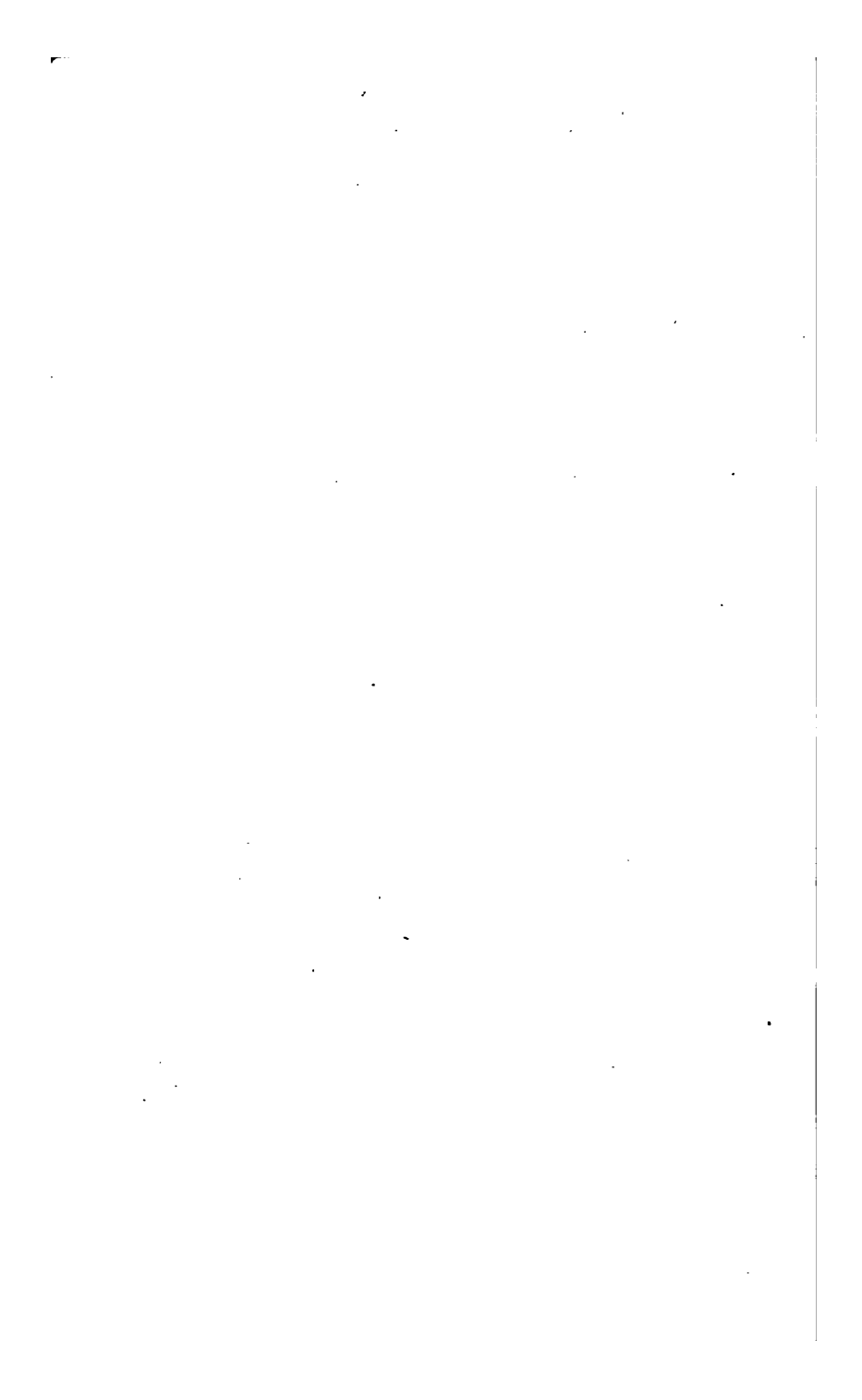
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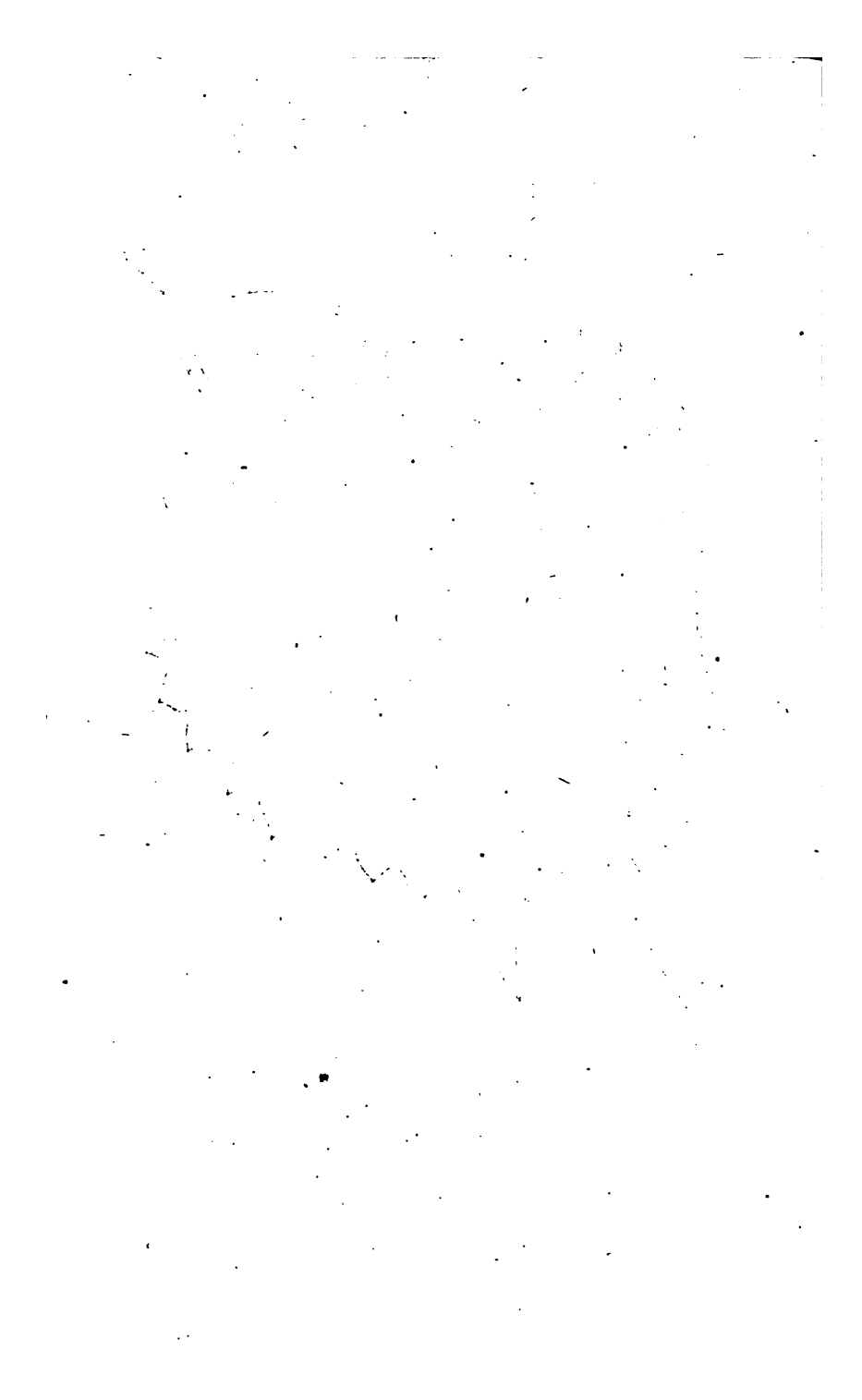
WE have been induced to publish this little work from the numerous inquiries made by personal correspondents, for two years past, in relation to the cultivation of the SCUPPERNONG GRAPE and its Wines; as well to show the necessity of resorting to a more diversified system of industry under our present gloomy and embarrassed situation.

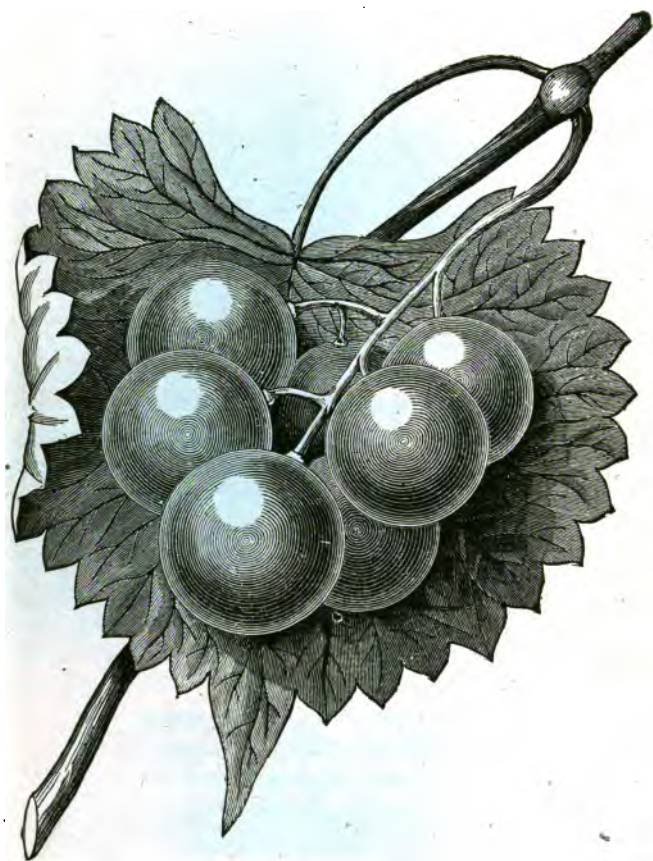
As our labor system has been entirely ruined by the United States Government, it becomes necessary for us to adopt means of gaining a livelihood whereby the former amount of labor required can be dispensed with. As one of the means of accomplishing this end, we lay before our Southern friends this little work, which, by lapse of time, we have no doubt, will need modifying in many particulars. But having been a resident of the State of Georgia for nearly thirty years, and having had some experience with this Grape for ten or twelve years past, we have presumed to place our views, founded on experience, before our unfortunate fellow sufferers of the once happy sunny South.

J. VAN BUREN.

CLARKSVILLE, GA.







THE SCUPPERNONG.

[*VITIS ROTUNDIFOLIA.*]

[*VITIS VULPINA.*]))

CHAPTER I.

THE HISTORY OF ITS DISCOVERY, BY DR. A. J. BUTNER.
DIFFERENT VARIETIES.

THE original type of this variety—known by the common names of Muscadine, Bullace and Bull Grape—is a native of the Southern States, and found growing wild from North Carolina to Florida. In appearance, habits, wood and fruit it is very distinct from all other native varieties, and also from all foreign varieties that we have ever seen.

The only variety that has any resemblance to it is the Mustang Grape of Texas, and that only in its manner of growth and in producing its fruit in single berries and small clusters; but it is a worthless variety, its fruit being the most acid of all grapes, while the fruit of the Scuppernong is the sweetest.

We are indebted to the pen of Dr. A. J. Butner, of Whitesville, North Carolina, for the following *morceau* of its history :

“All that region of North Carolina which, beginning with the bars of our coasts, extends its sandy soil for forty, sixty or eighty miles into the interior, and is timbered with long leaf pine, produces, in a wild state, a variety of vines, which, in the popular language is styled

the Bullies. In the western parts of the State, a similar grade, and probably identical with it in genus, is called the Muscadine, and flourishes all along the banks of the Yadkin, Catawba, Deep and Haw rivers;* indeed upon most of our upland streams, and is found in various stages of perfection.

"But the highest development of the whole genus, so far as at present known, is beyond doubt the Scuppernong. This grape still grows wild in its native seat; and on the waters of Pamlico and Albemarle Sounds specimens may at this day be found, uncultivated in the woods, in all their native luxuriance. Indeed, the first vine of the kind known to Europeans is said to be still growing on Roanoke Island, and to yield its annual crop of fruit, as it did at the date of its discovery. The grape, however, derives its name from Scuppernong river, or creek, where among other localities, it is found growing wild in the forests."

We are also under further obligations to Dr. C. G. Wyche, of North Carolina, for the following history of the Scuppernong Grape, as communicated to him by his brother, the Rev. J. T. Wyche, together with a notice of the Mish and Flowers Grapes, both supposed to be seedlings from the Scuppernong:

"This grape is a native of Tyrrell County, North Carolina. The original vine was said to be living on Roanoke Island a few years since; if so, it must have been several hundred years old, according to the account given by Calvin Johnson, Esq., in a letter to Col. H. G. Burton, published in the *American Farmer*, and re-pub-

*The Muscadine or Bullace is found growing wild on all water courses from North Carolina to Florida.—ED.

lished in the *Southern Planter*, of July, 1867. He says: 'I am told that Gov. Lane and Capt. Phipps' report to Sir Walter Raleigh, published in *Hakluyt's Collection*, speaks of this grape as growing on Roanoke Island when the colony first landed there. This grape and wine had the name Scuppetnong conferred upon them by Henderson and myself, in compliment to Mr. James Blount, of Scuppernong, (a river in Tyrrell county), who first diffused a knowledge of it in several well written communications in our paper; and it is cultivated with more success on that river than in any other part of the State except on Roanoke Island.

'Thirty years ago it was commonly reported in Tyrrell county that Parson Pettigrew, as he was generally called, first brought the Scuppernong into notice. He was a very intelligent, pious and modest man, the grandfather of the late Gen. James Johnson Pettigrew, that noble patriot and brave soldier who fell in the recent war.

'The Mish Grape is black, small and very sweet. It was found by Mr. Mish on his plantation, six or eight miles below Washington, N. C., on Tar river, or Pamlico, as it is sometimes called below the town of Washington. It is a Muscadine of extraordinary sweetness; it will probably make a wine equal, if not superior, to the Scuppernong.

'The Scuppernong, Mish, and Thomas Grapes are competitors, but the Flowers grapes, ripening at a different time, as yet occupies singly the closing days of the vintage. I do not consider it the equal of the others in flavor, but very many persons, and especially ladies, give it the first rank.'" [Good authority.—Ed.]

The wood or bark of the Scuppernong is of an ashy gray color, with numerous small specks of russett of a lighter color; the bark is smooth, and does not peel off in strips, as is the case with the other varieties of the grape; the wood is hard, and divided into joints from one to three inches in length; the growth is very rampant, but the shoots are small and wiry.

The fruit is not produced from the current year's growth, as is the case with all other grapes; but on spurs one year or more old, and from three to four inches long. These spurs continue to bear from year to year as do the spurs upon the apple and pear trees.

The wild, or original type, is dioecious, while the Scuppernong is polygamous, or monœcious. The leaves are from two to three inches across, cordate, or heart-shaped, coarsely serrate, but not acuminate; both upper and under surfaces are smooth, delicate in structure, with small nerves and petioles about two inches long. On the appearance of frost they turn a brilliant yellow color, unlike any other grape before they fall to the ground. It blooms and sets its fruit from the middle to the last of June, according to locality, and ripens its fruit from the middle to the last of September.

We are not aware that the *Vitis Rotundifolia* or *Vitis Vulpina* have ever been found growing north of the Alleghany Mountains, nor amongst the spurs of the Alleghany range of mountains in Virginia and North Carolina on the south side. It will, however, grow wherever the mercury does not fall to zero; whenever it falls to that point it is killed to the ground. It is the most vigorous grower and long-lived of the grape family; the annual growth is slender, tough and wiry, but increase in size as

long as the vine lives. There is a vine growing near Mobile, Ala., that must be at least one hundred years old, and was, a short time since in perfect health and vigor.

The Scuppernong, when growing in a soil which is rich and adapted to it, has a habit peculiar to itself, which is that of putting out roots from its stem and limbs from two to ten and twelve feet from the ground, endeavoring to send them down to it; these roots seldom reach the ground, as they grow only from a foot to eighteen inches in length in a season, and are killed back a portion of their length by frost the subsequent winter. The second year these roots throw out branches from the stump that was left uninjured. We now have a vine growing at our door, where it receives the benefit of the slops that are daily thrown out, which has hundreds of roots hanging down from its trunk and limbs to the height of ten feet or more; these roots are about one-eighth of an inch in diameter, fleshy, and their ends rounded and smooth. This vine is about ten years old, and has been in this habit for some five years past.

It has been supposed that the original locality of the Scuppernong was alone in North Carolina, but such is nor the case; it has been found growing wild in Georgia, at least in two different localities; whether in any other of the Southern States or not we cannot say. The annual growth of a good and healthy Scuppernong vine is about five feet in all directions laterally, when growing on an arbor or scaffold, in moderately rich ground.

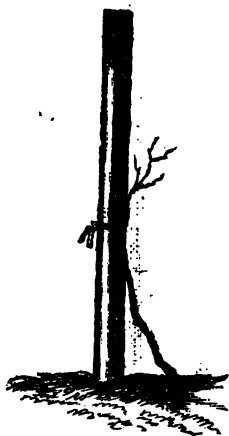


CHAPTER II.

THE PROPAGATION OF THE SCUPPERNONG.

THE Scuppernong is propagated alone from layers, as it utterly refuses to grow from cuttings with us; we have tried hundreds of cuttings both in the open ground and under glass, with bottom heat, and have never succeeded in rooting one. The layers strike root very readily when turned down and covered with a little earth; we have even known them to take root when lying upon the ground covered with the leaves that had fallen from the vine upon them. The rooted layers should be planted in a vineyard, at a distance of thirty feet apart each way, as follows: Set good heart-pine or locust, or any other durable posts, about six inches in diameter and seven feet high, firmly in the ground where it is intended each vine should grow; by the side of each post dig a hole some three feet wide and one foot deep, in this put about three inches of good rich earth from decayed leaves, or some swamp mud mixed with any good garden soil; on this put the rooted layer, spreading out its roots evenly, leaning the cutting against the post; fill up the hole with any rich earth that may be convenient, and tie the cutting to the post as shown in Fig. No. 1.

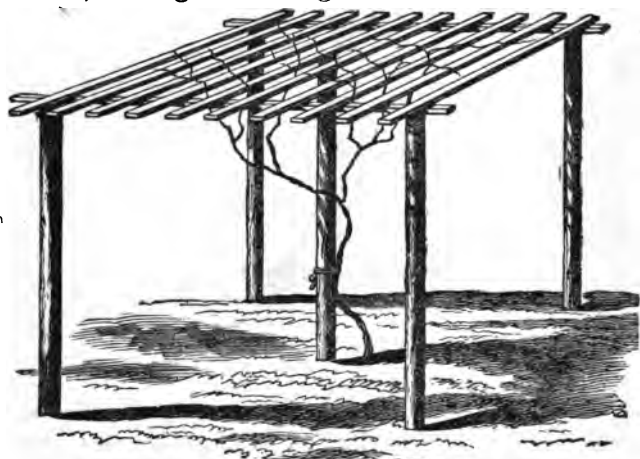
The ground should be cultivated subsequently in any kind of crop which requires it to be kept clean, such as cotton, peas, potatoes, etc., and should be kept in good fair tilth by manuring, plowing and hoeing. It should



[Fig. No. 1. POST AND VINE FIRST YEAR.]

not be too rich, as the vines are not as productive as when only moderately thrifty. Land that will give twenty-five bushels of corn to the acre is sufficiently rich for this vine. If the ground can be covered for a few yards about the vines, for two or three years, with decaying vegetation, it acts very beneficially; weeds, leaves, hay and straw make a good mulch. The roots of the Scuppernong run nearer the surface of the ground than do the roots of other grapes, consequently the deep, expensive preparation of the ground is not needed for this grape. A moderate application of lime will act benefi-

cially in assisting to decompose the vegetable matter in the soil—thereby affording more nutriment; but if the soil is moderately fertile it can be dispensed with without detriment to the growth of the vine or the quality of the fruit. As the vine grows, keep tying it to the post until it reaches the top, cutting off the latterl shoots, until within a foot or two of the top; then let it make as many as it pleases, as these are to spread over the arbor or scaffold, forming the bearing wood of the vine. When



[Fig. No. 2. PLAN OF CONSTRUCTING AN ARBOR. VINE 2D YEAR.]

the vine reaches the top of the post, set four posts of the same size and height as the one to which the vine was tied, at a distance of ten feet from each other, forming a square with that to which the vine is tied in the center. In the tops of these posts saw a notch, in which lay four rails from one to the other; on these rails lay cross bars, of either common spit rails, or sawed strips, one and a

half inches thick by three inches wide, about one foot apart; on this arbor train the branches of the young vine for a year or two, after which time it will need no further care. By way of precaution, it is well to nail a strip of hoop iron over the rails lying in the notch in the top of the posts down to their sides, otherwise, in time of a very high wind, the rails and vine may be rolled up into a mass, much to its injury. Never permit the vine to get into a thick or tangled mass on the arbor, for in such case the interior wood dies for want of sun and air. As the vine grows to the outer edge of the arbor, set another row of posts ten feet from the others and in like manner lay on rails again, thus extending the arbor as required from time to time. The tendrils of this vine are much stronger than those of any other grape, and also more numerous; we have known it to clasp some of its own branches so firmly as to cut off or strangle them to death. Should any of the branches be discovered in this condition, cut the tendril and liberate it from this too friendly embrace.





CHAPTER III.

THE PROPER CULTIVATION OF THE SCUPPERNONG GRAPE TO PRODUCE NEW VARIETIES.

As we have before stated, the Scuppernong needs but very little care or cultivation; as the foliage is very dense, it forms an excellent mulch, and when rotted, an excellent manure to the roots, which run but a few inches below the surface of the earth. After a vine has been planted four or five years, the shade is so perfect as to kill out the weeds and briars beneath the arbor—thus leaving nothing for the owner to do but to give a little manure should the ground become exhausted, which fact will become apparent by the fruit being too small and of poor flavor.

The vine of the Scuppernong never needs pruning, unless it be to cut away some stray shoot which is growing beneath the arbor or where it should not; when this becomes necessary cut it at any time when in full leaf—in May, June or July is the proper time. If cut in the latter part of the winter it is very likely to bleed copiously when the sap rises in February or March, and will not cease until the leaves are grown.

Neither the vine, leaf, or fruit is, as far as our experience extends, subject to any disease or malady; mildew

is never seen upon either the vine or leaf, nor have we ever seen a rotten berry upon the vine. It is also singularly exempt from the attacks of insects of all kinds; the herds of little worms or caterpillars that infest other vines are never seen upon the Scuppernong, but the foliage remains perfect and fresh until killed by frost. The fruit is never depredated upon by birds, except occasionally a crow may fancy a few. There is a nondescript biped, however, destitute of wings, but with plenty of wool, that proves very annoying. The only remedy for this pest is to catch the little imps and put a small bell on each one, as is done with rambling dogs.

The fruit of the Scuppernong does not grow in clusters, as the other varieties of the grapes; but where a number of berries grow together it is a sort of corymb; many berries grow singly, but the clusters vary in their number of berries from two to twenty.

The size of the berries vary from three-fourths of an inch to one and a quarter in diameter. The form of the berries is round, of a dull, yellowish green color when fully ripe, with a few russet specks sprinkled over them; the skin is thick and tough; if picked before fully ripe, it has a tough pulp, but if suffered to remain upon the vine until a little wilted the pulp has nearly all dissolved into a very sweet, rich, aromatic juice. It is the sweetest and most luscious of all the grapes we have ever met with, either native or foreign. The honeyed and delicious fragrance of the Scuppernong, when ripening, fills the air, and becomes perceptible for a considerable distance. When ripe, the fruit is easily shaken from the vines, but as the berries leave the stem very freely, they cannot be picked in clusters. As a dessert fruit, it

is attractive in appearance as well as delicious to the taste.

Seedlings from the Scuppernong have but little uniformity in appearance; some are red, others brown or nearly black, and others again green or yellow. It is very desirable to have some of the dark colored varieties, where wine is the object in view, for the purpose of furnishing coloring matter to make red or rose-colored wine, by adding it to the juice of the Scuppernong. We have made some beautiful colored foaming wine by using about one gallon of juice, obtained from the wild Muscadine or Bullace, to ten of the Scuppernong; this wine was of a pale rose color.

The seedlings begin to bear fruit the third or fourth year; it is to these we are to look for great improvement in this fruit. Many, doubtless, will be inferior to the parent, while some will be equal, and others superior, in size and flavor. Bestow the care and attention to cultivation and raising seedlings from this fruit that has been upon the strawberry, and we may with confidence expect to have vines producing berries as large as hen's eggs, or even larger. To do this we have but to follow the advice of Van Mons, the great pear grower of Belgium, who says, "sow, sow, sow, keep sowing seeds," and improvement is sure to follow.

But as it now stands, the Scuppernong will produce double or treble the amount of fruit and wine per acre than any other grape in the world, that we have any account of, can do; the amount that a single vine will produce is incredible to one who has never seen the vine in bearing. Our own vines, six years transplanted, this year gave three bushels each of clear grapes; last year

the same vines gave us about a half bushel each ; next year they will probably give at least six bushels each, and continue to double in quantity annually for several years. We have seen vines ten years old yield thirty to fifty bushels per vine. The large vine near Mobile, to which we have before alluded, we are credibly informed has produced two hundred and fifty bushels of grapes at a single crop.

As the question has been very frequently asked us, how soon will vines begin to bear after being transplanted? we answer, in two, three or four years, according to circumstances ; vines growing in soil of medium quality will produce a few berries the third year, while those in a very rich soil, making a rampant growth, require a longer time—for it is a principle well verified, that when a fruit tree is making wood rapidly it produces but little, if any, fruit. The wood-making and fruit-making processes are in most cases antagonistic to each other. Where a vine is so vigorous that it fails to produce fruit, root pruning probably would prove a remedy. When this is resorted to, it should be done with caution, and only when the vine is in full leaf; June or July would be the proper time. If done during winter or early spring, it would probably cause the death of the vine.

We will anticipate another question, which one about to engage in planting a vineyard of this grape is sure to ask: What number of bushels of grapes, or how many gallons of juice, may be expected from an acre of ground? Allowing forty-nine vines to an acre, well cared for, you will get, when the vines are six years old, one hundred and forty-seven bushels of grapes, which will give four hundred and forty-one gallons of juice—which is three

gallons of juice to a bushel of grapes. At ten years old each vine will probably give from ten to fifteen bushels per vine; allowing three gallons of juice to each bushel of grapes, and we have from fifteen hundred to two thousand gallons of juice, in round numbers. Certainly enough to satisfy any one of reasonable avarice. As the vines advance in age beyond ten years, the quantity will be increased beyond the expectations of the most sanguine cultivator.

P. J. Berckmans, of Augusta, Ga., informs us through the *Southern Cultivator*, for November, 1867, that there are instances where "single vines of the Scuppernong have produced sixty barrels of wine in one season. But they are exceptions that all wine growers must not expect to realize." Dr. Wyche, of Whitesville, N. C., through the same medium, informs us this year of a vine in his neighborhood which has produced one hundred bushels of grapes—the vine being about thirty-five years old.

All that is necessary to produce the Scuppernong in all its excellence of flavor, of the largest size and greatest quantity, is to select a dry soil, it matters not whether loam or sandy, give it fair and honest cultivation, and success is certain. What we here assert we know from personal experience to be true. It probably is true, as stated by A. L. Butner, Esq., of North Carolina, that it does not succeed well on cold clay soils; we have had no experience with it on such soil, but we do know it can be successfully grown anywhere from the seaboard to the foot of the mountains, from the Potomac river to Texas, on loamy or sandy soil.

There are several varieties of this grape which we

have never seen, but which are described by A. L. Butner, Esq., to-wit :

“ The Thomas Grape, which I infer is of black color, and in other respects similar to the Scuppernong. Another of the same color, known as the Flowers Grape, a native of Robeson county, N. C., a little later in ripening than the Scuppernong. The same gentleman also informs us that he has been told of a golden yellow variety.”

To those who are dissatisfied with the merits of the Scuppernong, we would again urge to sow its seeds, and beyond all question you will sooner or later get a grape far superior to it in size and flavor, but not in exemption from disease, or more productive, or easily cultivated. The question may be asked, how many acres of vines can one man cultivate? A man can, with ease, attend ten acres and keep it in good order until the time of picking or gathering the fruit, when the number will have to be increased. A good hand will pick about five bushels per day, that is if he picks all from the vine, and does not resort to shaking them off. This estimate of labor is made after the arbors are built; one man will keep the ground in order, and annually repair the arbors.

We have found the following method of raising seedlings to succeed well enough for all practical purposes: Make a bed in the vegetable garden five feet wide and of desirable length, mark it off in rows one foot apart, running across the bed; sow the seed in October, fresh from the pomace when you crush your grapes, in the rows marked off, and cover one inch deep. After the plants make their appearance in the spring, thin them out to a distance of three inches, keep them clean from weeds

and grass, and occasionally hoe them, and they will make a growth of from two to three feet in height by fall, and be fit for transplanting during winter.



CHAPTER IV.

ON RAISING SEEDLINGS AND NEW VARIETIES.

In accordance with the recommendation we gave in the first edition of this little work, in relation to the sowing of the seeds of the Scuppernong and raising seedlings, for the purpose of getting new and improved varieties, we began in the year 1867 to sow the seeds. In the year following, we grew about 2,000 seedlings, and amongst that large number we found but one vine which would produce a white grape similar to its parent—the Scuppernong; all the others were dark colored varieties; some had reverted to the original type, while a few were an improvement upon it. We again sowed a bed of seeds in 1868, and from amongst some 2,000 seedlings we failed to get a single white grape; all had gone back to the original type. In 1869 we sowed again, and from about the same number of seedlings we got three white colored varieties; so that from amongst 6,000 seedlings we only have four vines resembling the Scuppernong in color. In the cultivation of these seedlings, we have found that three-fourths of the number are barren or staminate vines, which never produce any fruit, so that the chances for improved varieties from seedlings from the Scuppernong is very small. Small and few as they are, we have made a decided step in the line of getting new varieties, however. The white seedling we raised from the first planting of seeds planted last year (1870); it bore a white grape similar in size and color to its parent, with a thin, tender skin, which, in some instances,

burst open on ripening; it has no pulp, but is fleshy—similar to Muscat of Alexandria, and others of that class. In taste it is both acid and sweet, and for a table grape superior to the Scuppernong. It possibly may prove to be a good wine grape, and it may improve or change as the vine gets more age; the leaves, too, differ from those of the Scuppernong, being smaller, of more delicate texture, and of a mottled appearance when full grown.

Knowing that the third generation or remove from the wild or normal type of fruits is more prolific in producing new varieties than any other, we last fall sowed eight seeds from two berries of the foregoing described seedling; the entire eight seeds grew, and we now have as the product, five dark-colored and three white varieties, showing very conclusively that this variety of grape has yielded, under domestication, very kindly to its influence. By continuing to sow the seeds from the third generation from year to year, we do not hesitate to predict that we will soon have varieties with very marked distinctions from any heretofore known. We trust the wild habits of this class of grapes is now broken up, so that the tendency to return to the wild or normal state will be less and less with each succeeding generation.

For the information of those who desire to raise seedlings, there is not the least difficulty in determining the color of the fruit that will be produced by the seedlings. The light-colored varieties have uniformly light-colored leaf stalks or petioles and tendrils, while those having dark or red leaf stalks and tendrils produce dark-colored fruit or are barren; these distinctive marks can be seen as soon as the plants make their appearance above ground, and also at any subsequent stage of growth.

The following are the varieties now known to be worthy of cultivation :

The Scuppernong,	Van Buren, No. 1,
Thomas,	“ “ 2,
McAlpine,	“ “ 3,
Mish,	Tender Pulp,
Sugar Grape,	Flowers.

In giving descriptions of the above named varieties, we omit that of the Scuppernong, as it is so well known and has been so often described, that it would be but supererogation to again do so.

The *Thomas* grape was found growing wild in Marion district, South Carolina, by Dr. Thomas, who first cultivated it, and whose name it justly bears. It is a black grape below the size of the Scuppernong, round in form, with a thick skin, and of sweeter flavor. The vine is as vigorous and hardy as the Scuppernong, and the fruit ripens at the same season. It yields a dark-colored juice and is of high flavor.

McAlpine. This variety was sent to us by that ardent and successful pomologist, Dr. H. A. Bizzell, of Clinton, N. C. As we have not yet fruited it, are unable to describe the fruit; but from what we know of the competency of Dr. Bizzell to decide upon the merits of any fruit, as well as his sterling reputation for honesty of purpose, do not hesitate to endorse that his disseminating any variety is a sufficient guaranty of its excellence. It is a dark-colored grape.

Mish. We are unable to give any further history of this grape than to say that it originated in that prolific region of this variety of the *vitis* family, to-wit, Eastern North Carolina. We have fruited it and find it to be a

fine, sweet grape, a little below the size of the Scuppernong, and ripening at the same time.

Tender Pulp. We are indebted to the catalogue of the firm of Messrs. Butner & High, of Whiteville, N. C., for the description of this variety, as we have not yet fruited it. "It originated in the vineyard of Mr. D. P. High. It is probably a seedling of the Flowers grape, and is distinguished from all other varieties of this class by its tender pulp, which, at maturity, melts upon the tongue like a delicate pear. In sweetness, it does not fully equal the Scuppernong, but its peculiar softness and fine flavor recommend it to the attention of grape growers. This is a black grape, ripening in the interval between the Scuppernong and Flowers."

Sugar Grape. We received this variety from Dr. C. G. Wyche, of Whiteville, N. C. It has fruited with us this present season, and find its name to be an index of its character. It is beyond question a seedling from the Flowers grape. The fruit is of small size as compared with the Scuppernong; oval in form and in clusters, the same as its parent; of black color when ripe, which, here, is about the middle of October.

Flowers. This grape is a native of Robeson County, N. C., found growing wild some forty or fifty years since. It is also known as the Babson grape. In color it is black, somewhat ovate in form, with larger clusters than the Scuppernong. The fruit does not fall to the ground on ripening, as do all the other varieties, but must be picked from the vines by hand. This grape is much improved in flavor if permitted to remain upon the vine until touched by a slight frost. The vine is more prolific than the Scuppernong, and the fruit yields

a very superior red wine; ripens later than the latter, hence is a valuable wine grape for a Southern climate.

We do not hesitate to say that this is a standard vineyard grape.

Van Buren's No. 1 was raised by the author from the seed of the Scuppernong, and bore fruit for the first time in 1870, and again this present year. It is a black grape, somewhat larger than its parent; in quality, about the same as the Scuppernong; has but very few seeds, and ripens near a month in advance of its parent. The vine is very vigorous, and has large, dark-colored leaves. From its early ripening, this variety possibly may be cultivated in the Middle States.

Van Buren No. 2, a seedling, raised by the author, and is the best and most delicious grape we have ever seen belonging to this class; it is very sweet, has but little pulp, few seed, and the most peculiar, rich, nutty flavor we ever tasted—entirely distinct from the Scuppernong, from the seed of which it was raised. The berries are black, with many russet specks, some of them entirely covered with russet; skin thinner than its parent; size about the same as the Scuppernong, and ripens at the same time. This variety will be the best wine grape we have seen up to this date.

Van Buren No. 3. This is a white grape, raised by the author from seed of the Scuppernong, and has fruited two years. In size the same as its parent; seeds few, and almost an entire absence of pulp, ripens a few days later; skin thin and very tender, sometimes bursting open when hanging on the vine; contains more sugar and more acid than the Scuppernong, will make a sprightly, pleasant wine; vines not so rampant as its pa-

rent, leaves smaller, and more delicate in texture; when grown, are mottled with dark-green spots.



CHAPTER V.

ON THE IMPORTANCE OF WINE MAKING.

Very few people are aware of the magnitude to which the cultivation of the grape and making of wine is carried in some portions of Europe. The author would here take occasion to say, that what is accomplished there, can, with less labor and expense, be done in the Southern States.

We are indebted to the Report from the Department of Agriculture, published at Washington, D. C., for the year 1869, for the following statistical information in relation to the manufacture of wine in France:

"Dr. Jules Guyot, an authority in wines and vineyards, writes that at the present time, the grape vine covers 2,500,000 hectares of ground, (6,200,000 acres), in France; about the twentieth part of French territory, and the sixteenth part of cultivated soil. Its raw product rises to more than fifteen hundred million francs per annum, (about \$300,000,000 in gold); it supports six millions of cultivators, and nearly two millions of tradesmen, manufacturers, transporters and merchants, representing, in totality, in the production and consumption, at least twenty thousand millions of francs, (or nearly four thousand million dollars).

"The vine is cultivated in seventy-nine departments, from that of the Gironde, which has more than 150,000 hectares to the department of the Ille-et-Vilaine, which possesses but 104 hectares.

"In forty-eight departments the vine produces not less

than one-quarter of the total agricultural revenue, and keeps more than one-fifth of the population; in sixty-nine it plays an important part in agriculture, and in seventy-nine departments, its products are three to six times greater than those of all other products.

"Everywhere it doubles the revenue of the domains, great or small, where its cultivation enters for a fifth of the superficies.

"The cultivation of the vine is the simplest, easiest, and most remunerative of agricultural productions. It begins to give its remunerative products at the third year; is adapted to any geological formation; prospers in the most arid of soils, where the cereals, roots, and forage are least likely to grow. In spite of the profits of the vine, public instruction in vine growing and wine making—objects of the attention, works and publications of some eminent men of every age and country, objects of solicitude to some monks and a few sovereigns—has never been comprised in the official course of study, even in France, where the vine and its products constitute the fifth of the private and public wealth, and provides one of the largest revenues of the State."

From the foregoing statement it will be seen that the annual wine crop in France amounts to more than the entire cotton crop of the Southern States. With a soil and climate adapted to the cultivation of a species of the vine which surpasses all others in the known world for productiveness, and not inferior to any in excellence for making wine of a high grade, together with the small amount of labor required in its cultivation, the Southern States are in possession of a monopoly more profitable, and of greater magnitude than growing cotton.

While the per diem cost of labor in France is much lower than with us, it must be taken into account that a man will cultivate three times the number of acres planted with the Scuppernong than he can when planted with the varieties cultivated in France or Germany. It must further be taken into account that an acre of ground in France will only give 400 gallons of wine, while with us it will give from one thousand to fifteen hundred gallons per acre.

Again, it must be considered that the varieties of vines cultivated in Europe are subject more or less to diseases, which very frequently causes an entire failure of a crop, or to very materially affect it in quantity and quality, while with us disease is unknown to the *vitis rotundifolia* family of grapes.

With this list of advantages, the most casual observer cannot fail to see that no nation or people can compete with us in the manufacture of wines. Scuppernong wines, both still and foaming, now rank higher than those from any other varieties of native grapes, and are inferior to but very few from Europe.

The recent gigantic war between France and Prussia with the consequent destruction of the vineyards in both Germany and France, as well as its paralyzing influence in every department of industry, must inevitably cause an increase in the price of wines in Europe, from which it will take several years to recover; and which must, in the mean time, increase the consumption and the market price of our native wines.

Notwithstanding the vast amount of pure wines made in France, Germany and Spain, it is but small when compared with the spurious wines manufactured in Europe and the United States.

The following morceau of the history of wine making, both true and spurious, we cut from a Mobile paper in 1869, and which we think will forcibly illustrate the amount of wines consumed annually :

“ How valuable the genuine Chateau Lafitte wine is, may be seen from the fact that the newspapers reported, a short time since, that this celebrated vineyard had been sold for the sum of 4,450,000 francs, (\$890,000). The purchaser was attracted, not only by the excellent wine and of the estate, but also by the lucrative character of the speculation ; for selling Lafitte wine is profitable business. Thus the vintage of Chateau Lafitte wine in 1865 was bought by six wealthy Bordeaux liquor dealers, at 5,600 francs per tonneau of 912 liters, (about 230 gallons). Next day these liquor dealers sold the tonneau at 6,500 francs, and to-day the tonneau of the same 1865 Lafitte wine is worth 8,000 francs, or \$1,600 for 230 gallons. The name Chateau Lafitte is a proud one ; and the reader who has not seen it, nor even taken a walk in the vineyards of Bordeaux, will certainly imagine that it is a magnificent chateau—rising boldly on the banks of the Garonne and overlooking the river.

“ But how great will be his disappointment, when he beholds the humble villa in the style of Louis XIII—about whose style of architecture, we can only say that it is exactly like those of the numerous villas in the environs of Paris. But we find there are no gorgeous apartments, with valuable paintings and sumptuous furniture, but only a collection of bottles filled with the wines of the last seventy years, which might tell us many interesting things. The history of Chateau Lafitte extends even beyond the time of the revolution.

"It is well known that Louis XV was one of the most ardent admirers of its wine, and that the Marquise de Pompadour liked to moisten her lips with this most excellent of French wines.

"The Castellan is an accommodating sort of man ; he guides us across the lawns adjoining the buildings toward the vine trellises, and communicates, on the way thither, some statistic data which do not seem unimportant to us: "our estate comprises 134 hectares of this precious soil. As a general thing, only twenty persons live at the villa; but when harvest time arrives, and the product bids fair to be large, as it does this year, we need 200 vintagers to secure the rich yield of our vineyard. In years not so favorable, we obtain about 520 barriques of 225 liters each; but this time we may count on 560 to 570. And now sir, look about at pleasure. The whole sweep to yonder belongs to the estate; there grows the best brand, and the only genuine Chateau Lafitte, for which people gladly pay from ten to twenty francs a bottle. It is true our neighbors on the right and left sell their wines under the same name, but they are not equal to ours." Long fields, not enclosed in fences, extended here, and dotted with small, seemingly, stunted vines. These vines are planted in rows, and carefully tied with bark or willows to low trellises. These trellises extend, in unbroken lines, from one end of the vast vine field to the other. Singular is the care with which every twig of the vine is fastened, and the whole so arranged that every grape is exposed to the full rays of the sun. Such is the general appearance of these vineyards; but it is by no means monotonous, for here and there are to be seen spots where the vines are unsur-

ported, and shoot out their branches like serpents over a large space; besides you find, every now and then, large vines at least six feet high, and leaning against enormous posts.

"But the small dwarf vines two feet high, as a general thing, are those yielding the most precious juice.

"The best sort grows where you see the most stunted and poor vines upon the trellises; and where you see the thinnest and hungriest branches, there the most magnificent grapes cluster on the most unpromising shoots. The most magnificent grapes; this is to be understood only in regard to their contents; for the berries look so uninviting that, if you should see them at a fruit dealers, you would certainly not touch them, and turn toward better looking but less valuable grapes. And now we pass on; are we still on the much vaunted soil of Chateau Lafitte, or have we set foot on the next vineyard? We do not know, for no ditches and fences separate these estates. The soil is too valuable to be squandered in this manner. Only plain posts stuck in the ground indicate the lines of demarcation.

"There are no fences even on the roadside; no guards or signs to keep you off; the valuable estate lies quite open; only during the vintage thorny branches are strewn along the roads in order to keep off the dogs, which, pursuing partridges between the trellises, like to snatch clusters of the refreshing grapes. For it seems to be a rule without exception, that all creatures, all animals, and all birds, when they reach those grapes, feed on them. As regards the peasants and vintagers, their appetite for them is truly wonderful, and it may be said that the whole vintage is a regular grape cure for them.

Their craving for them is constantly on the increase. They are eaten at breakfast, dinner and supper; the field laborer eats grapes while working in the field; the child at its mother's breast sucks them with its toothless mouth, and Heaven alone knows how many grapes are consumed by the vintagers from early dawn to nightfall.

"The inhabitants of Bordeaux and its environs divide their red wines into classes. The first comprises four *crus*, namely, Chateau Lafitte, Chateau Margeaux, Chateau Latour, and Chateau Haut Brion. They are the most precious pearls. Next follow in the second class, Rauzan, Larose, Lascomb, de Gosce, Bau Mouton, Leoville, and Pacon Langueville. The best wines from the vineyards of the parishes of Cantenac, St. Julien, St. Laurient, St. Estephe, etc., form the third class; while the white Bordeaux wines, such as Graves, Barsac, Sauterne, Preignac and Laugon form a class of their own. All these wines are noted for their strength, fire, and the great proportion of *tannin* they contain. Their excellent qualities have made them one of the most valuable articles of French exportation. Bordeaux annually exports, on an average, 1,400,000 hectolitres of them to all parts of the globe, while 400,000 hectolitres are consumed in France, and as many more are used in making cognac brandy. But the Bordeaux wines have an enemy constantly endangering their reputation, and which cannot be conquered, and has its seat in beautiful France itself. On the shores of the Atlantic, and on the banks of the Garonne, it does not show itself; it has receded there before the generous and genuine Bordeaux wines, and has established the headquarters of its mean, but exceedingly lucrative business in a port on the Mediterranean.

At Cette are to be found the most extensive wine establishments in the world. All wines in the world are manufactured there to order. Do you want Johannisberger—real good seal? Here it is. Or Tokay, Falernian, Madeira, Cape wine? Take your choice, sir; everything is at your service as fast as you want it. They are excellent chemists—these honest men of Cette; and no one equals their skill in imitating wines. Most injury is done to the Bordeaux wines; for Cette exports as large quantities of imitation Bordeaux wines as Bordeaux exports genuine wines.

At Cette, the adulteration of wines, for which it is exceedingly well situated, is likewise carried on most extensively. Coasting vessels carry thither the wines of Southern Spain, from Barcelona and Valencia. The inferior Bordeaux wines are sent from the Garonne by the Canal des Midi to the Mediterranean, where they are greeted by their colleagues from the banks of the Rhone.

“Out of all these wines and their chemicals, and with the assistance of valuable recipes, handed down from father to son, the shrewd inhabitants of Cette boil and brew new and valuable sorts. A wretched Bordeaux wine grown in a little village on the Garonne, far, far from the generous wines we have enumerated above, is taken and examined by the Cette manufacturer, who seizes his boxes and powders, dyes it with cochineal, adds alcohol to it, and swears by all the saints that the vile mixture is genuine Chateau Lafitte, grown in the year 1822.

“That champagne is manufactured by the hogshead in Cette, as well as Mayence, Wirtzburg, Naumburg and

Dresden, cannot surprise us. Do you wish sweet Levant wines? the Cetté artist mixes old Rhone wine with sweet wines from the Lunel, and the wine is ready; only the price has to be fixed.

"Port wine, Sherry and Madeira are made out of cheap, bad Rhone wines, cognac and all sorts of drugs. Cetté, in effect, is the capital and emporium of all wicked practices of the wine trade, and yet the flags of all nations are to be found in its harbor, where the shrewd Yankees are most numerous represented.

"Remember our hints, all of you who drink claret. Consider well what you drink. Do not be so haughty in your opinions; do not deem yourselves infallible as connoisseurs. How often you are cheated. Taste and knowledge as to wines are as rare as they are in regard to art. Every one would like to make us believe that he possesses them; and yet how small is the number of those who really possess them. Hence, it is a sin if you set first-class wines, such as Chateau Lafitte, before those who cannot appreciate it. Save these noble brands; they grow once, but do not reappear again. Chateau Lafitte of 1822 is considered the very best. The vines blossomed then at the beginning of June; this year they opened their fragrant cups near Bordeaux already in May, and every body is on the *qui vive* for the vintage. If the sun does his duty, the vintage may be like that of 1822."

When we add to the foregoing the large amount made in Germany, Hungary and Spain, to say nothing about the genuine wines made in California and the Northern States, with the immense amount of spurious wines made in the North, who can doubt that wine making in

the Southern States must prove to be a remunerative enterprise.



CHAPTER VI.

TO MAKE THE FINEST WINE FROM THE SCUPPERNONG— STILL WINE—SPARKLING, OR CHAMPAGNE WINE.

The juice of the Scuppernong Grape has a natural tendency to make an effervescing or foaming wine, but which, under proper treatment makes a rich and delicious still wine.

To make either foaming or still wine, the grapes must be fully ripe, which can be known by their beginning to wilt or become a little flabby, and of a more yellow color than when they are eatable; they should either be picked by hand, or skaken upon a sheet prepared for the purpose and spread upon the ground, or, which is better, fastened to a frame elevated from the ground a few inches. By falling upon it when spread on the ground some few of the berries burst, which does not occur when a frame is used. Select and pick out all green or unripe berries. We use a wooden mill of our own construction to crush the fruit; it has but one roller, six inches in diameter and twelve inches long, working in a bed of a quarter circle which is sufficiently open to admit the whole grapes at its upper edge, and gradually approaches the roller until the seeds can only pass through without being crushed. The roller has sixteen rows of teeth, made by driving in eight-penny nails to the depth of about one inch, and cutting them off at one-eighth of an inch from the roller; these teeth are half an inch apart in the rows which run lengthwise of the roller. The

bed piece has four rows of teeth similar to those in the roller.

In Chapter VII we give a cut of the mill and press we use which, when worked by hand, will crush ten bushels of grapes per hour. We find a roller with teeth preferable to one without, as the grapes are perfectly torn in pieces, and yield more juice than when only crushed. There should be two tubs to the mill and press, which are combined in the same frame, so that while one is under the press the other can be under the mill receiving the crushed grapes; thus crushing and pressing can be carried on at the same time and by the same person.

Strain the juice as it comes from the press into clean oak barrels, strongly hooped with wooden hoops; then add one and a half pounds No. A 1 crystalized sugar to each gallon of juice and stir until thoroughly mixed by inserting a stick into the bung-hole. The barrel should be filled full, so that all filth may work out of the bung-hole, which must remain open for two weeks.

A good cellar is indispensable—in which the barrels containing the juice must be kept. Without a cellar it is impossible to make good wine, because it will run into acetous fermentation from the changes of the atmosphere. Brandy distilled from the juice of the Scuppernong may be used instead of sugar, and should be added after the juice has been in the barrel two weeks, by which time fermentation has nearly ceased; one pint of brandy to each gallon of juice is sufficient. At the end of two weeks put in the bungs tight, where sugar has been used, and when brandy is used, bung up when the brandy is added.

In February or March following, rack off the wine into

clean casks, and bottle that intended for foaming or Champagne wine; add to each bottle a tablespoonful of best clarified sugar, and cork with good corks, which must be tied in; place the bottles in a cool cellar, bottom up, standing on the corks, where they should remain without being disturbed until the first of July. During this period a second fermentation takes place, and a sediment is deposited in the neck of the bottles. To remove this sediment requires some care and skill, which can soon be acquired by practice. Take each bottle carefully from its place, keeping it inverted, untie the fastening to the cork and take it out suddenly, and instantly re-cork it; this will blow out all the sediment and a small amount of wine with it. The bottles should have been filled to within an inch of the cork, so that it will be sufficiently full after the sediment has been removed as above directed. The bottles should then be re-corked with new corks, or the old ones driven home with a mallet and wired or tied in securely, and placed in racks on their sides with the corks exposed, so that if any leak they can easily be seen, and stopped by putting in new corks.

Foaming Scuppernong wine requires strong bottles, similar to the imported Heidsieck. We have frequently used old Champagne bottles and have never had any to burst; but the common junk bottle is too thin and weak, and if used a large per centage will be lost.

To make a fine still wine, rack it off in February or March into clean, sweet barrels, as before directed, and add to each gallon of wine one pint of Cognac brandy, or, which is better, one pint of brandy distilled from the new fermented juice of the Scuppernong; let the bung remain loose for two weeks, so that the small amount of

gas formed during the second slight fermentation may pass off, when it can be bunged up tight, and at the end of one year will be a nectar fit for the gods to drink.

No foaming wines that we have ever seen and tasted can compare in delicious, honeyed flavor and bouquet to that made from the juice of the Scuppernong.

Some persons may object to the use or addition of sugar or alcohol, and say pure wine should be nothing but the fermented juice of the grape.* To such we will only reply, that with equal propriety pure bacon or beef should never have the addition of salt; and that if they have ever drank a glass of good old Madeira or Sherry wine they have swallowed twenty per cent. of brandy with it. Yet, notwithstanding what we say, if they still prefer the poor, weak, watery astringent liquor from the Catawbas, fit only to tan leather in, to that from the sweet and luscious Scuppernong, we can only say, *De gustibus non disputandum*.

WINE MAKING IN NORTH CAROLINA BY A. J. BUTNER—REMARKS AND SUGGESTIONS ON THE ABOVE PROCESS, BY DR. H. DOCKERY, OF HERNANDO, MISS.

We now add an admirable article on the manufacture of Scuppernong wine from the pen of Dr. A. J. Butner, of Whitesville, N. C., an old and experienced cultivator of the Scuppernong, and commend it to the careful peru-

* Sugar is not added to the must for the purpose of sweetening the wine, but as a preventive, by being converted into alcohol, and arresting fermentation. The addition of brandy or alcohol has the same effect.

sal of any who propose to engage in the cultivation of of this desirable variety of the grape—contributed by him to the *Wilmington Journal*. And we shall hope to hear from him again on the new varieties, such as the Thomas, the Flowers, the Mish, and any other seedling of merit, as we shall in these look for great improvement and excellence :

“In my last communication I stated that I would next describe the process of making wine ; also alluded to the fact that the Scuppernong has a natural tendency to effervesce. And this tendency is not a matter of theory or inference, but a characteristic of it, which I have convinced myself of by repeated experiments. Indeed, I have made bottles of sparkling Scuppernong, which, as *effervescing* wine, was pronounced equal to any produced in France or elsewhere. Owing, perhaps, to unskillfulness or inexperience in the management of the wine, much of it was lost by the bursting of the bottles. But the result was such as to warrant the conclusion that the expertness and skill of a practical Champagne maker were all that was requisite to insure a sparkling wine of the first quality.

“I have not undertaken the experiment on a large scale since, as I could not afford the loss of thirty-three and one-third per cent. of my wine, and then obtain an article not properly cleared of dregs, and therefore not capable of transportation. The same grape will yield still wine of the best quality ; when this has become old, and thus acquired mellowness and color, I think you may risk a comparison with any wine I know of.

“And now for the process of making it. First, pick your grapes fully ripened, and suffer none but such to

enter your wine press. Let me insist upon it that you attend to this matter with the strictest care. The more thoroughly ripened your fruit, the better it will be for your purpose. As to that piece of frippery about detecting the introduction of two or three, or even half a dozen, unripe grapes in a barrel of wine, I think it simply a ridiculous pretense. Yet be assured of the fact that green grapes do not yield a rich juice, suitable for a fine wine any more than unripe apples will make cider of good body and flavor. Therefore, let me repeat, have none but fully matured grapes brought to your press. Mash your fruit with a roller machine, or any other contrivance made of wood, which does not crush the seeds, press out the juice, and add from one and a half to two pounds of good loaf sugar per gallon to the *must* immediately, and you will have a luscious, sweet wine, warranted to keep in any climate, if you are resolute enough to make the experiment for any number of years.

"The matter of using sugar I do not by any means consider the perfection of wine making; for grape brandy would and does answer the purpose fully as well, and I do not doubt makes a wine of superior flavor, as in that case no foreign taste has been added to the juice, which cane sugar, to some slight degree, must do.

"But without either sugar or brandy I have not thus far been able to make a palatable wine. With proper management, I do not hesitate to say, I think a less quantity of sugar will save your wine, but how much less, I am unable to say from experience of my own. I know that a good and sufficiently strong wine may be made with one and a half pounds of sugar, and I am not prepared to say but even less than that will eventually be found to answer the purpose.

"However, this is a matter for investigation in the wine-maker's profession, and one that can be satisfactorily decided only by a series of scientific and intelligently conducted experiments. Such will finally be made; and the result will be that we shall deliver a wine made of our Scuppernong grape, equal to the choicest brands of sweet wines sent to this country from Hungary, Spain, or Italy.

"That a grape so rich in aroma, and in all the qualities which constitute a first-rate wine when fully matured and the juice properly treated, should not turn out a superb article, is impossible; for there is ample experience to prove it. Yet, whether sugar, or brandy made of the Scuppernong itself, should be added to the *must*, experience alone can decide. However, permit me to add a slight hint of what may be done. Suppose you take the juice, or *must*, as it is called, turn it into large oaken fermenting tubs, and just as you discover that the yeast, which will float on the top of the liquor, begins to separate and crack up, previous to precipitating, you draw off your wine and put it into clean fumigated casks, adding a small quantity of Scuppernong brandy—and would not this process furnish a wine richly flavored with the aroma of the grape, and of sufficient sweetness without the introduction of any sugar at all? This I am sure can be done, and if some one who may chance to read this article would favor us with the items of the process necessary for a successful experiment, he would render no small service to the public.

"As I am upon the subject of managing the *must* as it comes from the press, let me say a word about the barrels suited for its reception to ferment in, and for

finishing your wine. They must be of oak, hooped with wood, and, if possible, no iron should be put around them. The new barrel should be well soaked in water for some days previous to using it, in order to destroy the oaky taste of the wood, and afterward fumigated with sulphur match, which is thus made: take a strip of cloth about an inch and a half wide and run it through a ladle full of melted sulphur; cut it into sizes of a finger's length, and with a wire or split stick introduce it, lighted at both ends, into your barrel before it has dried of the soaking you previously gave it. This process will counteract all tendency in your new wine to acetous or vinegar fermentation, and never in the least affect the flavor of the wine. And whenever you rack off your vintage into new barrels, or old ones that have been in use before, they should be thus treated. In short, whenever you change your wine into other barrels, let them be always treated as above described.

"I have been somewhat particular on this subject, but its importance to the wine-maker will be sufficient apology. In the next spring after it has been laid down in your cellar (for a cellar is indispensable to the wine-maker), say on some clear, bracing day in January, rack it off into barrels, previously fumigated as above described. Do not pour the dregs into your barrel, as your object now is to clear and fine your wine. Therefore, as soon as you observe the wine you are racking off becoming turbid, stop drawing. Fill the barrel well up to the bung, and keep it full to that point all the ensuing summer.

"About the time the Scuppernong vine has put out its leaves, and the warm weather of spring has set in,

you will observe a new fermentation in your wine by the crackling and slightly hissing sound in the barrel. This need not alarm or surprise you, for it takes place with all new wines, and not only does them no injury, but tends to perfect and mellow them during the coming summer. You may even detect another fermentation the spring after, all of which is natural, and results in maturing and strengthening the wine—a most important item before you throw your wine into market.

“However, this second fermentation will subside in a few days, when the wine will become quiet, and commence to improve perceptibly in flavor and color. Your cellar, all the time, should be dry and as sweet as lime and cleanliness can make it. And here let me observe once more, that without having a wine-cellar, the wine-maker has not supplied himself with all the requisites for his business.

“I stated in a previous paper, and may perhaps be indulged in a little repetition, as my object is to have wine properly made, that by the addition of sugar in the quantities above given, a superior and very sweet Scuppernong could be produced, and also, that by adding a small per cent. of brandy the same end might be attained; that this last appeared to me to be the preferable method, for this reason: that in this way no foreign flavor would be added to the wine, and no taste but that of the Scuppernong grapes would never be detected in it. But let me beseech you, and all wine-makers, as you respect your duty toward one of the choicest favors of Providence, do not murder your juice by the application of apple brandy, or miserable Bourbon or corn whisky. It is this last horrible outrage that has deteriorated the

qualities of our generous Scuppernong, and caused it to be *evilly spoken of*; and I here enter against it, evermore, my most solemn protest and denunciation.

“If you use spirits of any sort, let it be brandy made out of the pomace of the Scuppernong grapes after you have done with them at the press, and can be used profitably for that purpose. Throw the whole mass up into hogsheds, or a number of barrels unheaded, and after a time all the juice they contain will collect at the bottom, and may be easily drawn off. When it has fermented to the proper degree, distill it carefully as you would cider or apple pomace, and you will obtain a brandy with the Scuppernong flavor, which age will render equal to any grape brandy you have ever sampled.

“Add this to your new wine before it has gone into fermentation—that is, as soon as it comes from the press—in such quantity as experience shall demonstrate to be sufficient, and you can certainly make a still Scuppernong to which age will give an aroma not surpassed by any other wine. Nor will it require a very large addition of brandy to check the fermentation of your wine so as to keep it sweet, and turn out a finely flavored and lucious article. I cannot but believe this will be the process finally adopted to obtain sweet Scuppernong wine of the still kind and of the finest flavor.

“For sparkling wine sugar must be added, as it is in the manufacture of French Champagne. Indeed, if wine, sugared as heretofore directed, be bottled in the spring after it is made and laid down on the side, so that none of the gas can escape, it will effervesce whenever it is opened. But the proper treatment of this last kind of

wine in the bottle—to wit: to clear it of the dregs precipitated during its fermentation—will demand the skill and nice manipulation of a trained Champagne-maker.

“And when vineyards have been planted on a large scale, as I trust they will be ere long, *he* is the operator who will have to be introduced, or your Champagne will probably always hold sediment in the bottle, and thus become muddy during transportation to market. Such skill as *his* will be required to clear the wine in your bottles by discharging the lees, according to a process well understood in all Champagne-cellars. It is useless to detail the process in these papers. All I would impress upon the manufacturer of sparkling Scuppernong is this: to get a practical Frenchman into his cellar and commit the management of that kind of wine to him. If the vineyard be an extensive one, as it ought to be, he will be well able to undergo the expense, and thus have his work done to perfection.

“Finally, this will of course be done, and then we shall drink sparkling wines from our own cellars, made of pure grape juice, and shall find a market among the appreciative all over the wide extent of this whole country, and perhaps compete in other markets with whatever the Champagne districts of France, or any other part of Europe, may deliver as their finest product in that line. This may, perhaps, seem to be an extravagant eulogium, but nevertheless true, and experience will prove it so.

“I have accomplished all I intended in these articles; have shown how and where to plant the Scuppernong, and management of it; how to make good wine, both still and sparkling—and this done, my task is completed.

Of course, it is not in my power more than to convince any one that it may be profitable to embark in this business. But if a faithful account of the whole process of wine-making, and its importance in a pecuniary point of view, can supply any stimulus, I shall be able to reflect that I have contributed my share toward encouraging so important a branch of industry in North Carolina."

We cordially agree with all said by Dr. Butner in the foregoing article, except the necessity of employing a practical Champagne-maker to clear out our bottled, foaming wines from sediment. By a little practice, any one of common ingenuity will soon become expert in blowing it from the necks of the bottles in the manner heretofore described by us in this volume—and at the same time relieve the bottles from excessive strain by the elaboration of gas.

LETTER FROM DR. DOCKERY.

"DR. M. W. PHILIPS & Co.—*Gents.*: I have looked over the proof-sheets of Van Buren's Grape-book. In reference to the Grape itself, neither Mr. Van Buren nor Dr. Butner have, nor can say too much. In reference to the Wine, I venture to suggest, from experience, that half the amount of sugar proposed by those gentlemen, with half of the amount mentioned of the Scuppernong brandy, will make a superior wine to either of the other plans proposed. I think with Mr. Van Buren in reference to the difficulties presented by Dr. Butner in making pure and clear sparkling wine. No need of a Frenchman. I usually set aside my first juice for sparkling wine—that is, the juice running from the grape when the skin is first broken, before the press is brought to

bear on the broken grapes. This gives less lees and dregs to contend with, besides this first exudation is the richer portion of the must.

"Sparkling Scuppernong should have the saccharine matter added in the form of concentrated syrup from double-refined loaf sugar: Syrup, 2 oz., Scuppernong brandy, 2 oz., to the champagne bottle called quart, *graduated liquid measure*, after complete fermentation. We can make as fine sparkling wine from Catawba and Concord as ever was made by Charles Farr or Piper Heidsick, of the little district of Champonia. Also, as good Hock, and as fine Sauterne from the Scuppernong as can be grown on the Rhine or in the world.

"Touching the productiveness of this grape, Mr. Van Buren's statements can be authenticated. I made, in 1867, two barrels of choice wine, from the product of five vines, after the family, friends and visitors had eaten what they listed, from the time they commenced turning. My neighbor from one vine picked sixteen and a half bushels. It is the vine for the South. Were I a young man I would plant out one acre of Scuppernong vines, if I had to pay five dollars per vine—and a *good* vine is cheap at that. That acre in a few years would be a support, and five acres a little fortune.

"Can't you stir up the people on this subject? Those who do not like the Scuppernong can take the Catawba, Diana, Concord, Warren, Pauline, Norton's Virginia, and a dozen others. We can make as fine Hock, Port and Champagne as ever swam the ocean. Then let all make and *drink* wine for the stomach's sake, and drunkenness will disappear from our land.

"Truly yours,

H. DOCKERY.

"HERNANDO, MISS., April 4, 1868."

[5]

The following is Mr. Hodge's mode of making wine from the Scuppernong :

"Gather the grapes from the 10th to the 20th of September, or when fully ripe. Crush them in a tub with a maul made of beech wood, then press it out as close as possible—i. e., as long as it will run. Put a pound of best white sugar to each gallon of juice; put it in a cask, filled, leave the bung open, and fill up every day with juice, reserved for that purpose, as it may evaporate or pass off. It will take ten to twenty days to ferment, and when it ceases, stop the bung tight. Bore a spigot hole with a small gimlet, and put the spigot in; try it frequently by taking the spigot out to see if fermentation is entirely over.

"One bushel of grapes will make three and a half gallons of delicious wine."

"In the year 1864, Mr. Carver Maltsby, of this county, gathered and sold to Mr. Thomas M. Smith eighty bushels of Scuppernong grapes—the product of one vine that year. The vine is about one hundred feet square. Mr. Maltsby has a large family, and both they and numerous visitors had unrestrained access to the fruit, and he says that at least twenty bushels of the fruit were eaten, without being measured. Neither he nor Mr. Smith has any conceivable motive for misrepresenting the facts, and as they are both citizens of good character and standing in our community, I give full faith to their statement. This is the largest yield of a single vine that I know of, but does not indicate the quantity that may be grown on the same space."

DR. H. DOCKERY, Hernado, Miss.:

Dear Sir.—We received and tested the sample of your

still Scuppernong wine, one year old, sent us through M. W. Phillips & Co., of this city, and we feel warranted in saying that it was truly fine; and with a little more age, fully equal to any brand of American wines we ever had in our cellar—and we have long dealt in Catawba and California wines.

Yours, &c.,

B. J. SEMMES & Co.,

Wine Merchants, Memphis, Tenn.

DR. H. DOCKERY,

Hernando, Mississippi;

Dear Sir.—We were handed a bottle of your Scuppernong wine by M. W. Phillips & Co., and pronounce it excellent. We have been dealing for eighteen years in American Wines, and pronounce this fully equal to any we ever sold in this market, of the same age. It will find a ready sale in this market.

Yours, truly,

A. VACCARO & Co.,

Wine Dealers, Front Street, Memphis, Tenn.

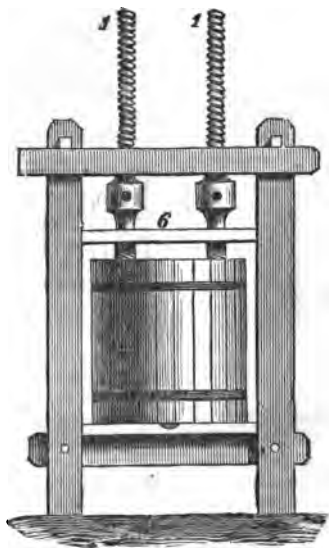
CHAPTER VII.

PRESS AND PRESSING.

The accompanying sketches of the apparatus which we make use of, are so simple that any good carpenter or wagon maker can construct one. The two screws used for pressing should be made of good hickory wood; the screw should be two and a half inches in diameter, with a half-inch thread; they should be two feet in length, with a head four inches in diameter, through which there must be a hole of one and a quarter inches to insert a bar for turning the screw. The follower, or cross-bar on which the screws work, should be of hard wood, and slides in a groove in each of the two posts of the frame. The tubs to contain the crushed grapes can be made either round or square; if round, provide two good stout wooden hoops, well riveted together where the ends lap or join; get out the staves about three inches wide, and nail them inside the hoops one-eighth of an inch apart, so that the juice may flow out between, in pressing, and have the inside of the tub the same size at both ends; have a plank, one and a half inches thick, cut to fit the inside of the tub so that it will slide freely up and down in it.

When your tub is nearly full of crushed grapes, slide it down under the screws of the press, place about an inch of straw on the top of the crushed grapes, and on this the plank, cut to fit the inside of the tub; place across this plank two short pieces of scantling, four

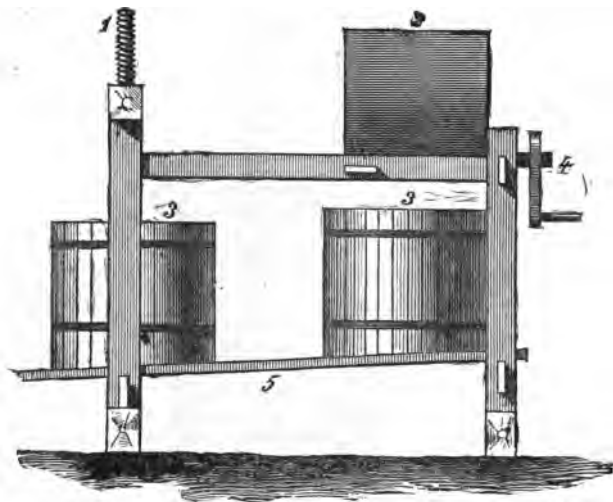
inches square, and on these lay the follower and bring down the screws, and from time to time, as required, add other pieces of scantling, and tighten the screws until you have forced out all the juice. Around the edge of the floor of the press a groove should be cut and brought together at the lower end so as to prevent the juice from



[Fig. No. 4. End view of Press and Tub. 6, Follower, which slides up and down in a groove in the posts.]

overflowing and being wasted, and to conduct it into the tub placed to receive it at the lower end of the press. The tubs for holding the crushed grapes may be made square, if preferred, by first making two square frames, of oak or hickory, mortised together at the corners, inside of which the staves can be nailed, as before directed, one-eighth of an inch apart.

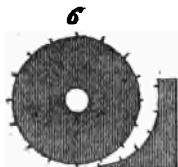
The crushing apparatus we think is sufficiently explained in the cuts to guide any one of ordinary ingenuity in constructing one at very little cost. And as it can be made at home, and all its parts are understood by the workmen who made it, it can, without much trouble



1, Two Screws for pressing; 2, Hoppér for the grapes; 3, 3, Tubs for the crushed grapes; 4, Shank of Roller and Crank; 5, Floor of Press, two inches thick; Length of Frame, four feet, width two feet.

or expense, be easily repaired when required. The screws and nuts can be made by those who follow making screws for carpenters', joiners' and cabinet makers' work benches; the head, or lower end, of the screws should have a pin of hard wood projecting one and a half inches and about the same in diameter, on which they turn and rest on the follower. A small indentation should also be made in the follower for them to work in.

Strain the juice through a cloth or fine sieve when you put it in the barrels, and pursue the course hereto-



[6, end of Roller, and Bed-piece, six inches in diameter, twelve inches long.]

fore prescribed, and you will have wine that, for foaming qualities, fruity flavor and aroma, is inferior to none, either native or foreign. We have made wine in a small way for a number of years from the Scuppernong grape, and have compared and tested it side by side with the best Heidsieck we could get, and have found it superior in the before mentioned qualities to that celebrated brand.

CHAPTER VIII.

From experiments which we have carried out since the former edition of this work was published, we are led to the opinion that after the first fermentation of must has subsided, say 1st of December, that if the new wine is filtered through a column of clean sand and charcoal, four feet in height, packed in layers five or six inches in thickness, that the wine will remain sweet and that the use of sugar may be entirely dispensed with. After being filtered, the wine should be put in good, clean, sweet barrels; should a second fermentation ensue in the following spring, it should be immediately racked off again into clean casks. We shall fully test this process this fall, and will give the result during next summer through our agricultural papers, should it prove to be of service.

With three additional years' experience since publishing the former edition of this little work, we have not found it necessary to change our views in relation to anything we then published, but will here add that the productiveness of the vine has not been overrated. Our vines eight years old will, from present appearances, yield 50 gallons of wine to each vine. As there is an effort making amongst a certain class of vine growers to create a prejudice against all wines that have sugar, or alcohol, or brandy added to the must in the manufacture of wines, and also to set up as a standard for comparison, the weak, sour wines of Germany and a portion of France; and some have gone so far even, as

to exclude from exhibition at their fairs, all wines which contain any of the foregoing articles. This will do no harm, as it is a tacit admission of their excellence over their pure wines, *so-called*. Against these efforts, we would caution our readers, for the American taste is altogether in favor of another class of wines than the sour, weak German wines. The favorite wines in the United States, are the Spanish, such as Madeira, Sherry and Port, all of which have from 20 to 25 per cent. of brandy added in their manufacture. Another class of favorite wines with the Americans, are the sweet wines, such as Champagne, and some of the Hungarian, and others of the same flavor.

None want the sour wines before mentioned, and we would here take occasion to say, that those engaged in endeavoring to make those they call pure wines a standard of excellence, have an up-hill job on hand, and one that they will never accomplish, for it is palpable that their taste runs adverse to that of the American public. Follow the directions given in a previous chapter, and you will have a wine of superior character, and which will meet with ready sale and good prices in our city markets.

If this little volume, written after some fifteen years' experience in the cultivation of this variety of grapes, and many failures with nearly all the most noted of Northern varieties, is deemed of sufficient importance to induce or encourage the adoption of a lucrative and pleasant occupation, our ambition is attained, and our followers will accept the hearty good wishes of one who has been a resident of the South for over thirty years, and who soon must cease his labors and be numbered with those that were.

J. VANBUREN.

ON HYBRIDIZING GRAPES.

For some time past it has been a prevalent opinion amongst some Pomologists, that new and valuable varieties of fruits could be produced by crossing distinct varieties, artificially ; thus far, however, the effort has proved a failure. We cannot, at this time, call to mind a single instance in which a new and valuable fruit has thus been obtained ; and as to crossing native varieties of grapes with those of foreign origin, we do not think it ever can be accomplished so as to produce one superior to one at least of the varieties employed in the process.

About once in every two or three years, a batch of new hybrids are heralded through the Horticultural papers, as being the very grape, or grapes, required, and the very ones long sought after ; a great deal of puffing and advertising is done, five dollars apiece is charged for the vines, and as soon as the requisite number of purchasers are victimized, it is found that this, or these new candidates to public favor are as defective in some points as were their parents, and in many instances much more so.

Our object in writing this short article, is to caution the readers of this little work against being taken in by those who have these wonderful mules for sale.

Admitting that our native varieties can be crossed with the *Vitis Vinifera*, or European grape, (although we doubt it) nothing is, or can be gained. Why? Because both varieties are diseased, or subject to be dis-

eased, and consequently their progeny must also be diseased; the progeny produced by hybridizing or crossing is not strictly a new variety; but one created by combining the traits of the two parents.

Thus, if we breed the Delaware and Concord together, we get an intermediate variety—one with a portion of the rough, worthless nature of the Concord, and the defect of the Delaware, in dropping its leaves and never ripening; or, if we cross the Isabella or Catawba with the Muscat of Alexandria or Chasselas, we get a variety with a double dose of liability to mildew and rot, although the flavor of the fruit may be all that can be desired. Where the parents are constitutionally defective or diseased, their progeny also is. Hybridizing is but the meeting of two strangers at a half-way house, and nothing more.

This law is imperative, and never changes with either animals or vegetables; cross the horse and ass, a mule is always the progeny—an animal superior to the ass and inferior to the horse; the same, also, in crossing the Anglo-Saxon with the African in the human family, a mulatto is invariably the progeny; an animal inferior to the Anglo-Saxon parent and superior to the African.

Van Mons produced or originated more excellent pears by sowing seeds and domesticating the seedlings, than all the hybridizers, from Adam in the garden of Eden, down to the present day.

With all the skill and perseverance of Mr. Knight, he has never produced a pear equal to the Seckel, Belle Lucratiff and Beurre d'Angou, or a host of other seedlings that might be named. Remember, those engaged in puffing these mulatto varieties have an axe to grind;

they want to sell you vines, at extravagant prices, which must turn out to be worthless, as all the native varieties belonging to the classes *Labrusca* and *Æstivalis* are known to be. It is a constitutional defect that these labor under; all are liable to mildew and rot, both in the wild and domesticated state, whilst the class *Vinifera* is subject to the same maladies in a more aggravated degree. The above mentioned native classes some times produce two or three fair crops of fruit, and are set down by their originators as perfectly healthy, when, alas! a change comes over them, and they must be abandoned, for they too have succumbed to mildew or rot, or both. We could promulgate other reasons for not taking to these so-called hybrids, but those we have given are so well established that, for all practical purposes in cultivating grapes for wine making, they are sufficient.

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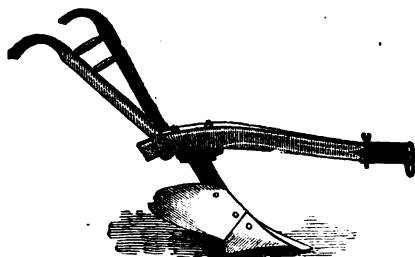
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